Hooded Sprayer Testing Requirement

Testing of hooded sprayers must be conducted in compliance with procedures as stated forth in [Appendix A].

[Registrant] must maintain a hooded sprayer tab on the website at [URL]. The website will identify a testing protocol, consistent with [Appendix A], that is appropriate for determining whether the proposed hooded sprayer reduces the spray drift of dicamba to a level equivalent to or less than (*i.e.*, not statistically greater than) that from the established baseline hooded sprayer in [Appendix A]. Hooded sprayers that have been tested pursuant to [Appendix A] by [registrant] and found, based upon such testing, to reduce the spray drift of dicamba to a level that is equivalent to or less than that from the established baseline hooded sprayer identified in [Appendix A] will be added to the list of qualified hooded sprayers on the website tab described above. Upon the Agency's request, test data relating to the impact of hooded sprayers on drift properties of dicamba generated by [registrant] or somebody working for [registrant] with the intent of adding to the list of qualified hooded sprayers on the website at [URL] must be submitted to EPA's Office of Pesticide Programs, along with certification indicating whether the study was performed pursuant to the testing protocols identified on the website and whether the results of the testing support adding the tested hooded sprayer to the list of products tested and found to reduce the spray drift of dicamba to a level that is equivalent to or less than that from the established baseline hooded sprayer identified in Appendix A.

Additionally, the website must state that any third-party entity seeking to have a hooded sprayer added to the list of qualified hooded sprayers must contact [registrant] prior to any testing for this purpose. At the discretion of [registrant], [registrant] will either perform a study pursuant to the testing protocol herein or request the third-party to perform such study. Should [registrant] decline to perform testing, the third-party entity or a testing facility on their behalf must perform a study pursuant to the testing protocol identified on the website and must submit to [registrant] the test data and results, along with certification that the studies were performed pursuant to the testing protocol identified on the website and that the results of the testing support adding the hooded sprayer to the list of qualified hooded sprayers for dicamba. [Registrant] will certify that the testing and results conform to the conditions prescribed in this protocol and, pursuant to the test conditions and results, will either post the hooded sprayer on the website at [URL] or notify the third-party entity that the hooded sprayer did not meet the requirements for posting. Where the third-party entity disagrees with this decision, the protocol used and the test results will be sent to EPA for a final decision. [Registrant] will maintain records related to this third-party testing of hooded sprayers and will supply these records to EPA upon their request.

Based on an assessment of additional data, EPA may approve additional application requirements specific to hooded sprayer use, including for wind speed, nozzles, a particular crop use, or application timing. Refer to the label for application requirements.

Dicamba application requirements when using qualified hooded sprayers, the listing of qualified hooded sprayers on the [URL] website, and the identification of the website address shall be included in educational and information materials developed by or for [registrant], including the materials identified in [Appendix D, Section B(l)].

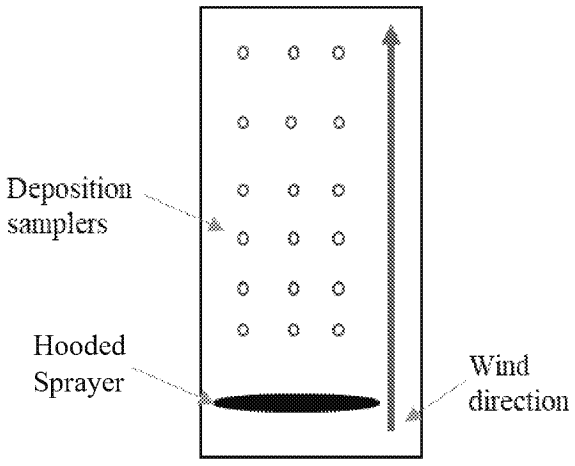
[Appendix A]

Testing of Hooded Sprayers for Impact on Spray Drift

Application equipment, such as hooded or shielded sprayers, proposed for in-crop (over-the-top) dicamba applications may be added to the list of qualified hooded sprayers on [URL] website if found, based upon such testing, that it reduces the spray drift of dicamba to a level that is equivalent to or less than that from the established baseline hooded sprayer as defined below.

Testing Conditions

Ambient Breeze Tunnel (ABT) controlled environment wind tunnel test using the conditions outlined below, with guidance from US EPA (2016)*. A section of a hooded sprayer is placed in the tunnel with the boom length perpendicular to the wind direction. Absorbent pads line the floor of the ABT to prevent droplet bounce. Dicamba deposition samples are collected at pre-determined distances downwind from the sprayer. After a 2-minute clear-out period, samples are retrieved from the farthest to the closest distances relative to the sprayer for subsequent residue analysis to quantify dicamba deposition. Testing conditions are established herein with the express purpose of producing and comparing drift deposition curves between a baseline and a proposed hooded sprayer and are therefore not intended to be representative of field conditions.



Testing is not required to be performed to GLP standards but is expected to be well-documented and validated, with associated record retention for potential future reference.

Spray components:	Clarity® + Induce (0.5 lb a.e./A + 0.25% v/v)
Baseline hooded sprayer:	RedBall® 642E
Proposed hooded sprayer:	TBD
Boom Configuration:	Fixed; length perpendicular to wind direction; rear curtain of hood/shield 6-in above ground
Nozzle/pressure:	TT 11003 at 50 psi
Spray rate:	15 GPA

* United States Environmental Protection Agency. 2016. Generic Verification Protocol for Testing Pesticide Application Spray Drift Reduction Technologies for Row and Field Crops

Wind speed:	Minimum 10 mph
Temperature:	Ambient
Humidity:	Ambient
Deposition samplers:	Filter paper on blocks 3-in above ground
Number of samplers:	Minimum 3 at each downwind distance
Sampler distances:	Minimum 6 downwind distances for analysis purposes; actual distances may vary based on study-specific considerations.
Drift simulations:	Minimum 1 per hooded sprayer
Analysis:	Appropriate non-linear and/or generalized linear models will be fit to the drift deposition measurements for each drift simulation of each hooded sprayer evaluated. After an appropriate model is selected, deposition estimates will be made at 2, 4, 8, 15, 30, 60, and 120 feet for both the baseline and proposed hooded sprayer.
Passing result:	If a comparison of the deposition values for the proposed hooded sprayer to the baseline hooded sprayer at 30 feet, using a one-tailed t-test (assuming equal variances, upper bound, alpha=0.10), is not statistically different, then the proposed hooded sprayer functions equivalent to or better than the baseline hooded sprayer.